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DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

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Title V Operating Permit

PERMIT NUMBER: 2300015001
DATE OF PERMIT: January 5, 2000
Date of Last Revision: January 5, 2000

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Ash Grove Cement Company
PO Box 51
Nephi, UT 84648

Permitted Location:

Leamington Cement Plant
Hwy 132
Leamington, UT 84638

UTM coordinates: 4,379,850 meters Northing, 397,300 meters Easting
SIC code: 3241

ABSTRACT

Ash Grove Cement Company operates the Leamington cement manufacturing plant in Juab County, Utah. This plant has been in operation since 1981. At the Leamington cement plant, cement is produced when inorganic raw materials, primarily limestone (quarried on site), are correctly proportioned, ground and mixed, and then fed into a rotating kiln. The kiln alters the materials and recombines them into small stones called cement clinker. The clinker is cooled and ground with gypsum into a fine powdered cement. The final product is stored on site for later shipping. The major sources of air emissions are from the combustion of fuels for the kiln operation, from the kiln, and from the clinker cooling process. The Leamington cement plant is a major source for emissions of PM_{10}, NO_x, and CO, and is subject to NSPS Subparts A, F, Y, & OOO, and NESHAP Subparts A & LLL.

UTAH AIR QUALITY BOARD

By:

Ursula Kramer, Executive Secretary

Prepared By:

David Beatty

Operating Permit History

1/5/2000 - Permit issued	Action initiated by an initial operating permit application	

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Section IV: ACID RAIN PROVISIONS.

Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

Section I: GENERAL PROVISIONS

I.A. **Federal Enforcement.**

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B. **Permitted Activity(ies).**

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C. **Duty to Comply.**

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records

required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D. **Permit Expiration and Renewal.**

I.D.1 **This permit is issued for a fixed term of five years and expires on January 5, 2005.** (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due by July 5, 2004. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E. **Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F. **Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G. **Permit Fee.**

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H. **No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I. **Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J. **Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K. **Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L. **Compliance Certification.**

I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than December 15, 2000 and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
EPA, Region VIII
999 18th Street, Suite 500
Denver, CO 80202-2466

I.M. **Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N. **Emergency Provision.**

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))

I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))

I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))

I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))

I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

I.O. **Operational Flexibility.**

Operational flexibility is governed by R307-415-7d(1).

I.P. **Off-permit Changes.**

Off-permit changes are governed by R307-415-7d(2).

I.Q. **Administrative Permit Amendments.**

Administrative permit amendments are governed by R307-415-7e.

I.R. **Permit Modifications.**

Permit modifications are governed by R307-415-7f.

I.S. **Records and Reporting.**

I.S.1 Records.

I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii)

I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))

I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.

I.S.1.b.2 The date analyses were performed.

I.S.1.b.3 The company or entity that performed the analyses.

I.S.1.b.4 The analytical techniques or methods used.

I.S.1.b.5 The results of such analyses.

I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.

I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2 Reports.

I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))

I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i)

I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. **Prompt, as used in this condition, shall be defined as written notification within 14 days.** Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

<u>For annual compliance certifications</u>

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and
Environmental Justice (mail code 8ENF)
999 18th Street, Suite 500
Denver, CO 80202-2466

<u>For reports, notifications, or other correspondence related to permit modifications, applications, etc.</u>

Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance
Air & Radiation Program (mail code 8P-AR)
999 18th Street, Suite 500
Denver, CO 80202-2466
Phone: 303-312-6440

I.T. **Reopening for Cause.**

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U. **Inventory Requirements.**

I.U.1 An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.U.2 A Hazardous Air Pollutant Inventory shall be submitted in accordance with the procedures of R307-155, Hazardous Air Pollutant Inventory. (R307-155)

Section II: SPECIAL PROVISIONS

II.A. **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))

II.A.1 **Quarry Operations** (designated as Quarry)
Unit Description: Rock drilling operations, truck hauling, and storage piles. No unit-specific applicable requirements.

II.A.2 **Stationary Crusher** (designated as B12)
Unit Description: Stationary crusher with an approximate production rate of 1000 tons per hour, for reduction of quarried material to 3 inch minus sized material. The crusher is equipped with a baghouse.

II.A.3 **Secondary Screens** (designated as SS)
Unit Description: Multiple secondary screens used for material size control and selection. Emissions from the secondary screens are controlled by water sprays.

II.A.4 **Raw Material Transfer** (designated as B25)
Unit Description: Crushed material is transported from crushing to raw material storage by conveyor belt B8. The raw material transfers at the end of conveyor B8 prior to loading into raw material storage silos. The conveyor transfer point is equipped with a baghouse.

II.A.5 **Raw Material Silos** (designated as C125)
Unit Description: Raw materials such as limestone, silica, iron, and shale are stored in one of four silos. The four silos are equipped with one common baghouse. No unit-specific applicable requirements.

II.A.6 **Fifth Component Silo** (designated as D24)
Unit Description: Waste alkali is stored in a silo. This silo is equipped with a baghouse.

II.A.7 **Kiln Feed Blending Silos (2)** (designated as E5)
Unit Description: Raw material is blended in one of two blending silos prior to feeding the kiln. The blending silos are controlled by one common baghouse. No unit-specific applicable requirements.

II.A.8 **Blending Silo Elevators** (designated as E34)
Unit Description: Blended kiln feed is transferred to the kiln by bucket elevators. The elevators are equipped with a baghouse. No unit-specific applicable requirements.

II.A.9 **Coal Grinding System** (designated as R140)
Unit Description: Coal is ground in a coal mill. Gases drawn from the preheater for the kiln entrain the coal in the mill and are dedusted in a baghouse.

II.A.10 **Coal Silo** (designated as R15)
Unit Description: Storage of coal for grinding to powder, which is subsequently fired in the kiln and calciner. The coal storage silo is equipped with a baghouse.

II.A.11 **Kiln & Pre-Calciner and Raw Mill** (designated as D38)
Unit Description: Kiln burning process and preheater tower off gases are directed through the bottom of the raw mill where finely ground raw material is picked up. Combustion gases and fine raw materials are then vented to a baghouse.

II.A.12 **Raw Mill Recirculation** (designated as D86, D88, D90, D92, D94)
Unit Description: Larger particles are removed from the raw mill, recirculated, and re-introduced into the raw mill feed. This system includes vibrating feeders, a conveyor system, and surge bin. Emissions are controlled by five equivalent baghouses.

II.A.13 **Kiln Feed Alleviator** (designated as F4)

Unit Description: Pneumatically conveyed kiln feed is separated from transport air in an alleviator followed by a baghouse. This process prevents the transport air from being introduced into the preheater. No unit-specific applicable requirements.

II.A.14 **Clinker Cooler** (designated as F31)

Unit Description: Grate type cooler used for cooling clinker from the kiln prior to transfer to clinker storage. The clinker cooler vent air is controlled by a baghouse.

II.A.15 **Clinker Belt Transfer** (designated as F73)

Unit Description: Clinker is removed from the clinker cooler by drag chains and dropped onto one of the clinker conveyor belts. The transfer points are controlled by a baghouse. No unit-specific applicable requirements.

II.A.16 **East Clinker Belt** (designated as F97)

Unit Description: Clinker from the clinker cooler is transferred into the East clinker silo by conveyor belt. The discharge from the belt is controlled by a baghouse. No unit-specific applicable requirements.

II.A.17 **West Clinker Belt** (designated as F98)

Unit Description: Clinker from the clinker cooler is transferred into the West clinker silo by conveyor belt. The discharge from the belt is controlled by a baghouse. No unit-specific applicable requirements.

II.A.18 **Clinker Silos** (designated as F81A&C)

Unit Description: Clinker from the clinker cooler is transferred to one of two storage silos. Each clinker storage silo is equipped with a baghouse to control emissions when loading. No unit-specific applicable requirements.

II.A.19 **Clinker Reclaim Hopper** (designated as G120A)

Unit Description: Imported clinker is fed to the clinker tunnel conveyor belt by the outside clinker hopper. Emissions during transfer of clinker to the conveyor are controlled by a baghouse that discharges into the clinker tunnel. No unit-specific applicable requirements.

II.A.20 **East Clinker Silo Discharge** (designated as G120B)

Unit Description: Produced clinker is fed to the clinker tunnel conveyor belt from the East clinker storage silo. Emissions during transfer of clinker to the conveyor are controlled by a baghouse that discharges into the clinker tunnel. No unit-specific applicable requirements.

II.A.21 **West Clinker Silo Discharge** (designated as G120C)

Unit Description: Produced clinker is fed to the clinker tunnel conveyor belt from the West clinker storage silo. Emissions during transfer of clinker to the conveyor are controlled by a baghouse that discharges into the clinker tunnel. No unit-specific applicable requirements.

II.A.22 **Gypsum Silo Discharge** (designated as G120D)

Unit Description: Gypsum is fed to the clinker tunnel conveyor belt from the gypsum storage silo. Emissions during transfer of gypsum to the conveyor are controlled by a baghouse that discharges into the clinker tunnel. No unit-specific applicable requirements.

II.A.23 **Clinker Tunnel Exitway** (designated as G120A, B, C, D)

Unit Description: The clinker reclaim hopper baghouse (G120A), east clinker silo baghouse (G120B), west clinker silo baghouse (G120C), and gypsum silo baghouse (G120D) all discharge in the clinker tunnel. Emissions are discharged through the tunnel exitway. No unit-specific applicable requirements.

II.A.24 **Clinker Crusher** (designated as G150)

Unit Description: Clinker from the storage silos is crushed in an impact crusher with approximate production rate of 1000 tons per hour prior to feeding to the finish mill. The crusher is equipped with a baghouse. No unit-specific applicable requirements.

II.A.25 **Gypsum Silo** (designated as G14)

Unit Description: Gypsum is stored in the gypsum storage silo. A baghouse is installed on the gypsum storage silo to control dust during loading. No unit-specific applicable requirements.

II.A.26 **Finish Mill** (designated as G105)

Unit Description: The finish mill grinds clinker and gypsum to produce finished cement product. Dust generated during milling is captured by a baghouse.

II.A.27 **Finish Mill Separator** (designated as G55)

Unit Description: After clinker and gypsum are ground into cement product, a separator returns the oversized cement particles to the finish mill. Dust generated by the finish mill separator is collected by a baghouse.

II.A.28 **Finish Cement Storage Silos** (designated as H7)

Unit Description: There are six storage and two interstice silos where the finished cement product is stored. A single common baghouse is located on top of the silos and is used to control emissions during loading and unloading operations. No unit-specific applicable requirements.

II.A.29 **North Cement Load Out** (designated as H25A)

Unit Description: The cement loadout system located on the North side of the silos (rail load out side) is controlled by a baghouse during unloading from the silos for rail shipping. No unit-specific applicable requirements.

II.A.30 **South Cement Load Out** (designated as H25B)

Unit Description: The cement loadout system located on the South side of the silos (truck load out side) is controlled by a baghouse during unloading from the silos for truck shipping. No unit-specific applicable requirements.

II.A.31 **Materials Handling Operation** (designated as MHO)

Unit Description: Includes the following emission units: SS, C125, D24, E5, E34, F4, F73, F97, F98, F81A&C, G120A,B,C,D, G150, G14, H7, H25A, and H25B.

II.B. Requirements and limitations.

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated: (R307-415-6a(1))

II.B.1 **Conditions on permitted source (Source-wide):**

II.B.1.a At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under R307-401-5 and 40 CFR 60.11(d) and 40 CFR 63.6 (Subpart A); condition originated in DAQE-958-96]

II.B.1.a.1 **Monitoring**: Records required for this permit condition will serve as monitoring.

II.B.1.a.2 **Recordkeeping**: Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Authority granted under 40 CFR 82.150(b); condition originated in 40 CFR 82]

II.B.1.b.1 **Monitoring**: The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.b.2 **Recordkeeping**: All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.b.3 **Reporting**: All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.c The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners. [Authority granted under 40 CFR 82.30(b); condition originated in 40 CFR 82]

II.B.1.c.1 **Monitoring**: The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.

II.B.1.c.2 **Recordkeeping**: All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.c.3 **Reporting**: All reports required in 40 CFR 82, Subpart B shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.d Visible emissions shall be no greater than 20 percent opacity unless otherwise specified in this permit. [Authority granted under R307-201-1(2); condition originated in R307-201-1(2) & DAQE-958-96]

II.B.1.d.1 **Monitoring**: A visual opacity survey of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for point sources, and in accordance with 58 FR 61640 Method 203C for fugitive emission sources.

II.B.1.d.2 **Recordkeeping**: A log of the visual opacity survey(s) shall be maintained in accordance with

Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 or 58 FR 61640, Method 203C shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.d.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.e Consumption of coal shall be no greater than 113,000 tons per rolling 12-month period. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.1.e.1 **Monitoring**: Consumption shall be determined within the first 25 calendar days of each month, for the previous month, using purchase records and inventory information. The total shall then be added to the previous 11 months total for a 12 month rolling total. Any adjustments to the total shall be fully explained and justified.

II.B.1.e.2 **Recordkeeping**: Daily consumption or usage records shall be maintained for all periods of operation. These records can utilize purchase records, operation logs, and/or inventory records as a basis for consumption determinations.

II.B.1.e.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.f All unpaved roads, other unpaved operational areas that are used by mobile equipment, and all disturbed surfaces not involved with operations shall be water sprayed and/or chemically treated to control fugitive dust. Treatment shall be of sufficient frequency and quantity to minimize fugitive dust as necessary to meet any applicable opacity limitations of this permit. The permittee is not required to apply water to surfaces during freezing conditions. If chemical treatment is to be used, the plan shall be pre-approved by the Executive Secretary. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.1.f.1 **Monitoring**: Records required for this permit condition will serve as monitoring.

II.B.1.f.2 **Recordkeeping**: Instances of water and/or chemical application to unpaved areas shall be recorded and maintained by the permittee. The ambient temperature shall be recorded any time water should be applied but can not be due to freezing conditions.

II.B.1.f.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.g All paved roads and paved operational areas shall be swept and/or water sprayed to minimize fugitive dust. The sweeping and/or water spray shall be conducted as dry conditions warrant or as determined necessary by the Executive Secretary. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.1.g.1 **Monitoring**: Records required for this permit condition will serve as monitoring.

II.B.1.g.2 **Recordkeeping**: Instances of each sweeping event or water application to the paved areas shall be recorded and maintained by the permittee.

II.B.1.g.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.h Effective June 10, 2002, the permittee shall have submitted to and received approval from the Executive Secretary of a written operations and maintenance plan for each affected source subject to the provisions of 40 CFR 63 (Subpart LLL). The written plan shall include provisions (1) through (4) as listed in 40 CFR 63.1350 (a). A portion of the plan shall address startup, shutdown, and malfunction requirements of 40 CFR 63.6(e)(3). [Authority granted under 40 CFR 63 (Subpart LLL) & (Subpart A); condition originated in 40 CFR 63 (Subpart LLL)]

II.B.1.h.1 **Monitoring**: Records required for this permit condition will serve as monitoring.

II.B.1.h.2 **Recordkeeping**: Permittee shall document activities performed to assure proper operation and maintenance as outlined in 40 CFR 63.1350 (a). Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.h.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2 **Conditions on Stationary Crusher (B12):**

II.B.2.a Visible emissions shall be no greater than 7 percent opacity from the baghouse. [Authority granted under 40 CFR 60.672(a)(2) (Subpart OOO); condition originated in DAQE-958-96]

II.B.2.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. For each affected emission unit, if no visible emissions are observed for eight consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

II.B.2.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.b Emissions of TSP shall be no greater than 0.05 g/dscm. [Authority granted under 40 CFR 60.672(a)(1) (Subpart OOO); condition originated in 40 CFR 60.672(a)(1) (Subpart OOO)]

II.B.2.b.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years, based on the date of the most recent stack test. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) Sample Method - 40 CFR 60. Appendix A, Method 5 or Method 17 shall be used to determine the particulate matter concentration. The minimum sample volume shall be 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 deg. C (250 deg F), to prevent water condensation on the filter.

(d) Calculations. To determine mass emission rates (lb./hr., etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.2.b.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.2.b.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.c Production of ore and waste materials combined shall be no greater than 1,549,000 tons per rolling 12-month period. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.2.c.1 **Monitoring**: Production shall be determined within the first 25 calendar days of each month, for the previous month, using loader trips, truck load counts, or

weigh conveyor data. The total shall then be added to the previous 11 months total for a 12 month rolling total. Any adjustments to the total shall be fully explained and justified.

II.B.2.c.2 **Recordkeeping**: Records of production shall be kept on a daily basis in accordance with Provision I.S.1 of this permit, for all periods of operation.

II.B.2.c.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.d Permittee shall operate water sprays or dust suppression sprays as appropriate to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary. Sprays shall not be required during periods of freezing temperatures. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.2.d.1 **Monitoring**: Visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

II.B.2.d.2 **Recordkeeping**: An operators log shall be maintained of all monitoring provisions listed above. Records of water spray system inspections shall be kept for all periods of operation and the ambient temperature shall be recorded any time water should be applied but can not be due to freezing conditions.

II.B.2.d.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3 **Conditions on Secondary Screens (SS):**

II.B.3.a Permittee shall operate water sprays or dust suppression sprays at all secondary screens, to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary. Sprays shall not be required during periods of freezing temperatures. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.3.a.1 **Monitoring**: Visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

II.B.3.a.2 **Recordkeeping**: An operators log shall be maintained of all monitoring provisions listed above. Records of water spray system inspections shall be kept for all periods of operation and the ambient temperature shall be recorded any time water should be applied but can not be due to freezing conditions.

II.B.3.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4 **Conditions on Raw Material Transfer (B25):**

II.B.4.a Visible emissions shall be no greater than 7 percent opacity. [Authority granted under 40 CFR 60.672(a)(1)(2) (Subpart OOO); condition originated in DAQE-958-96]

II.B.4.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40

CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. For each affected emission unit, if no visible emissions are observed for eight consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

II.B.4.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.4.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5 **Conditions on Fifth Component Silo (D24):**

II.B.5.a Permittee shall operate water sprays or dust suppression sprays at all fugitive emission points associated with the waste alkali handling system, to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary. Sprays shall not be required during periods of freezing temperatures. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.5.a.1 **Monitoring**: Visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

II.B.5.a.2 **Recordkeeping**: An operators log shall be maintained of all monitoring provisions listed above. Records of water spray system inspections shall be kept for all periods of operation and the ambient temperature shall be recorded any time water should be applied but can not be due to freezing conditions.

II.B.5.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6 **Conditions on Coal Grinding System (R140):**

II.B.6.a Visible emissions shall be no greater than 20 percent opacity. [Authority granted under 40 CFR 60.252(c) (Subpart Y); condition originated in DAQE-958-96]

II.B.6.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. For each affected emission unit, if no visible emissions are observed for eight consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible

emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

II.B.6.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.6.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6.b Emissions of PM_{10} shall be no greater than 1.08 lbs/hr and 0.01 grains/dscf. [Authority granted under R307-401-6(1) [BACT] & 40 CFR 60 (Subpart Y); condition originated in DAQE-958-96]

II.B.6.b.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years, based on the date of the most recent stack test. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible particulate matter.

(3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(4) The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.6.b.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.b.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.7 **Conditions on Coal Silo (R15):**

II.B.7.a Visible emissions shall be no greater than 20 percent opacity. [Authority granted under 40 CFR 60.252(c) (Subpart Y); condition originated in DAQE-958-96]

II.B.7.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. For each affected emission unit, if no visible emissions are observed for eight consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

II.B.7.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.7.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8 **Conditions on Kiln & Pre-Calciner and Raw Mill (D38):**

II.B.8.a Emissions of TSP shall be no greater than 23.45 lbs/hr (dry basis) at 170 tons per hour kiln feed rate. [Authority granted under R307-401-6(1) [BACT] & 40 CFR 60 (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.8.a.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Testing and Frequency. Emissions shall be tested every three years, based on the date of the most recent stack test. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the source shall provide the above information at least 60 days before the test. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) Sample Method - 40 CFR 60. Appendix A, Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The minimum sample time and sample volume shall be 60 minutes and 0.85 dscm (30.0 dscf). The emission rate of particulate matter shall be computed for each run using the equation in 40 CFR 60.64(b)(1). Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the emission rate of particulate matter shall be computed for each run using the equation in 40 CFR 63.1349 (b) (1).

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation. In addition, if the production rate during testing is less than 170 tons kiln feed per hour the hourly emission rates shall be scaled linearly using the following formula:

$E = Etest (170/P)$

E = equivalent emission rate scaled linearly to a production rate of 170 tons kiln feed per hour

Etest = the measured emission rate at test conditions

P = the production rate at which the source test was conducted (not less than 90% of the highest production rate achieved within the previous three years)

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.8.a.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.8.a.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary

within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.b Emissions of PM_{10} shall be no greater than 21.11 lbs/hr at 170 tons per hour kiln feed rate. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.8.b.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years, based on the date of the most recent stack test. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible particulate matter.

(3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(4) The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation. In addition, if the production rate during testing is less than 170 tons kiln feed per hour the hourly emission rates shall be scaled linearly using the following formula:

$$E = Etest\ (170/P)$$

E = equivalent emission rate scaled linearly to a production rate of 170 tons kiln feed per hour

Etest = the measured emission rate at test conditions

P = the production rate at which the source test was conducted (not less than 90% of the highest production rate achieved within the previous three years)

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.8.b.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.8.b.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.c Visible emissions shall be no greater than 20 percent opacity. [Authority granted under 40 CFR 60 (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.8.c.1 **Monitoring**: The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere in accordance with R307-170 and 40 CFR 63.8 (Subpart A), and shall record the output of the system. The output shall be reviewed at least monthly for compliance with the opacity limit; compliance is to be based on the percent opacity averaged over six consecutive minutes.

II.B.8.c.2 **Recordkeeping**: Results of opacity observations shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.8.c.3 **Reporting**: Reports shall be submitted as outlined in R307-170 and Provision I.S.1 of this permit.

II.B.8.d Emissions of NO_x shall be no greater than 400 lbs/hour. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.8.d.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually based on the date of the most recent stack test. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a

copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.8.d.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.8.d.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.e The permittee shall use only the following fuels in the rotary kiln: coal, tire derived fuel (TDF), natural gas, diesel fuel oil, or used oil.

The permittee shall use only the following fuels in the pre-calciner: coal, used oil, diesel fuel oil, or natural gas.

Additionally, the permittee shall be limited to a maximum TDF consumption not to exceed 15% of the combined energy input to the rotary kiln and pre-calciner on a monthly basis. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.8.e.1 **Monitoring**: Within the first 25 days of each month, a 12-month total of fuel usage and the respective heating values shall be determined using records from the previous 12 months.

II.B.8.e.2 **Recordkeeping**: The permittee shall record and maintain records of the types and quantity of

each fuel combusted daily.

II.B.8.e.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.f Consumption of used oil fuel shall be no greater than 85,724 gallons per rolling 12-month period. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.8.f.1 **Monitoring**: Consumption shall be determined within the first 25 calendar days of each month, for the previous month, using purchase records and inventory information. The total shall then be added to the previous 11 months total for a 12 month rolling total. Any adjustments to the total shall be fully explained and justified.

II.B.8.f.2 **Recordkeeping**: Records of used oil combusted shall be kept daily for all periods when the plant is in operation.

II.B.8.f.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.g Permittee shall meet the following requirements when used oil or tire derived fuel (TDF) is burned in the rotary kiln:

Combustion gas temperature at the rotary kiln exit shall not drop below 1,500 degrees Fahrenheit for more than five minutes in any 60-minute period.

Oxygen content at the kiln system ID fan shall not drop below 2% for more than five minutes in any 60-minute period. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.8.g.1 **Monitoring**: The permittee shall continuously monitor the temperature and oxygen content at all times used oil or TDF is burned in the kiln using equipment approved by the Executive Secretary. Calibration procedure and frequency shall be according to manufacturers specifications. Use of factory calibrated thermocouples for temperature measurement is approved. All monitoring equipment for both temperature and oxygen shall be located such that an inspector can safely read the output at any time.

Additionally, the permittee shall monitor the quantities and times that used oil or TDF is burned in kiln.

II.B.8.g.2 **Recordkeeping**: Permittee shall record the temperature and oxygen content at no less than every 5 minutes during operations when used oil or TDF is burned in the kiln. The permittee shall record the quantities and times when used oil or TDF is burned in the kiln.

II.B.8.g.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.h Sulfur content of fuel burned shall be no greater than 1.0 lbs sulfur/MM Btu for any mixture of coal or

0.5 percent by weight for any used oil. [Authority granted under R307-401-6(1) [BACT] , R307-203-1; condition originated in DAQE-958-96]

II.B.8.h.1 **Monitoring**: The following specifications shall be recorded for each purchase of fuel: weight percent sulfur, gross heating value (Btu per unit volume), and density. All specifications shall be ascertained in accordance with methods of American Society for Testing and Materials.

Sulfur content in lbs/MMBtu shall be determined by the following equation: S lbs/MMBtu = [(Weight percent sulfur/100) x Density (lb/gal)] / [(gross heating value (Btu/gal)) x (1 MMBtu/1,000,000 Btu)]

For purposes of demonstrating compliance with this limitation, the permittee may obtain the above specifications by testing each purchase of fuel in accordance with the required methods; by inspection of the specifications provided by the vendor for each purchase of fuel; or by inspection of summary documentation of the fuel sulfur content from the vendor, provided that the above specifications are available from the vendor for each purchase if requested.

II.B.8.h.2 **Recordkeeping**: Results of monitoring shall be maintained as described in Provision I.S.1 of this permit.

II.B.8.h.3 **Reporting**: In addition to the reporting requirements in Section I of this permit, the permittee shall submit reports on a quarterly basis of the sulfur content of coal or used oil burned. The report shall include sulfur content and be submitted no later than the 15th day of the month following each calendar quarter for the previous quarter.

II.B.8.i The concentration of contaminants or parameters in any used oil fuel burned in the Kiln shall not exceed the following levels: Arsenic 5 ppm by weight, Barium 100 ppm by weight, Cadmium 2 ppm by weight, Chromium 10 ppm by weight, Lead 100 ppm by weight, Total Halogens 1,000 ppm by weight, Sulfur 0.5 percent by weight, and Flash Point not less than 100 degrees F. Used oil exceeding any of the above contaminants shall not be burned until the permittee has submitted and received approval of a modeling analysis of the projected emissions for each contaminant from the Executive Secretary. The modeling analysis shall show in each case that the resulting concentration of contaminant in the ambient air does not exceed the TLV/100 value at the fence line for the given contaminant. Any used oil fuel that contains more than 1,000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the kiln. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.8.i.1 **Monitoring**: The permittee shall maintain test certification data for each load of used oil fuel received. Certification shall be either by permittee testing or test reports provided by the used oil fuel vendor. The used oil fuel shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to a holding tank or burned.

II.B.8.i.2 **Recordkeeping**: Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation.

II.B.8.i.3 **Reporting**: There are no reporting requirements for this provision except those

specified in Section I of this permit.

II.B.8.j Permittee shall record the clinker production rates and kiln feed rates for all raw materials, on a daily basis. [Authority granted under 40 CFR 60.63(a) (Subpart F); condition originated in DAQE-958-96]

II.B.8.j.1 **Monitoring**: Records required for this permit condition will serve as monitoring.

II.B.8.j.2 **Recordkeeping**: Records of production and raw material throughput shall be kept in accordance with Provision I.S.1 of this permit for all periods of operation. A log of the clinker production and all raw materials fed shall be made on a daily basis.

II.B.8.j.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.k Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL), to control dioxin/furans, the permittee shall operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limits (for both raw mill operating and not operating) as determined and established in accordance with 40 CFR 63.1349 (b) (3) (iv). The permittee shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln/raw mill at least once annually, based on the date of the last inspection. [Authority granted under 40 CFR 63, Subpart LLL; condition originated in 40 CFR 63 (Subpart LLL)]

II.B.8.k.1 **Monitoring**: Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the permittee shall monitor Dioxins/Furans (D/F) as follows:

(1) The permittee shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, PM control devices. The recorder response range shall include zero and 1.5 times either of the average temperatures established during the performance test. The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval.

(2) The permittee shall monitor and continuously record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the PM control device.

(3) The three hour rolling average temperature shall be calculated as the average 180 successive one-minute average temperatures.

(4) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

(5) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour

rolling average temperature must begin anew, without considering previous recordings.

(6) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

II.B.8.k.2 **Recordkeeping**: Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the permittee shall comply with the recordkeeping requirements specified in 63.10 of the general provisions of 40 CFR 63, and those specified in Section I of this permit. Additionally, the permittee shall keep a log of the annual inspections of the components of the combustion system of each kiln or in-line kiln/raw mill.

II.B.8.k.3 **Reporting**: Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the permittee shall comply with the reporting requirements specified in 63.10 of the general provisions of 40 CFR 63, Subpart A, provisions of 40 CFR 63.1354, and those specified in Section I of this permit.

II.B.8.l Emissions of Dioxins/Furans (D/F) shall be no greater than 0.20 ng per dscm (8.7 x 10 ^-11 gr per dscf) (TEQ) corrected to seven percent oxygen or 0.40 ng per dscm (1.7 x 10 ^-10 gr per dscf) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 deg. C (400 deg. F) or less. [Authority granted under 40 CFR 63 (Subpart LLL); condition originated in 40 CFR 63 (Subpart LLL)]

II.B.8.l.1 **Monitoring**: Stack testing shall be performed as specified below effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL)

(a) Frequency. Emissions shall be tested every 30 months based on the date of the most recent stack test. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 23 shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(4) Performance tests shall be conducted while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of

the in-line kiln/raw mill is not operating. If equipped with an alkali bypass simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass shall be performed, however the alkali bypass test is not required when the raw mill of the in-line kiln/raw mill is not operating.

(5) The duration of each of the three separate test runs shall be at least three hours and the sample volume for each run shall be at least 2.5 dscm (90 dscf).

(6) The temperature at the inlet of the PM control device for the kiln or in-line kiln/raw mill, and alkali bypass where applicable, shall be continuously recorded during the period of the performance test. One-minute average temperatures shall be calculated for each minute of each run of the test.

(7) If activated carbon injection is used for D/F control, the injection rate must be continuously recorded during the performance testing in accordance with 40 CFR 63.1349 (b) (3) (v) & (vi).

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be when the affected source is operating at the highest load or capacity level reasonably expected to occur.

II.B.8.l.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.8.l.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.9 **Conditions on Raw Mill Recirculation (D86, D88, D90, D92, D94):**

II.B.9.a Visible emissions shall be no greater than 10 percent opacity from each baghouse. [Authority granted under 40 CFR 60.62(c) (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.9.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. If no visible emissions are

observed for twelve consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the above monitoring requirements shall be replaced by the following:
The permittee shall conduct a 6 minute visible emissions observations on a daily basis using 40 CFR 60, Appendix A, Method 22 and while the mill is operating at highest load or capacity level. If visible emissions are observed, permittee will initiate corrective action within one hour and conduct a 30 minute opacity observation using 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.

II.B.9.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.9.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10 **Conditions on Clinker Cooler (F31):**

II.B.10.a Emissions of TSP shall be no greater than 10.69 lbs/hour (dry basis) and 0.01 grains/dscf. [Authority granted under R307-401-6(1) [BACT] & 40 CFR 60 (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.10.a.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years, based on the date of the most recent stack test. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the source shall provide the above information at least 60 days before the test. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) Sample Method - 40 CFR 60. Appendix A, Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The minimum sample time and sample volume shall be 60 minutes and 1.15 dscm (40.6 dscf). The emission rate of particulate matter shall be computed for each run using the equation in 40 CFR

60.64(b)(1). Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the emission rate of particulate matter shall be computed for each run using the equation in 40 CFR 63.1349 (b) (1).

(d) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.10.a.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.10.a.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.b Emissions of PM_{10} shall be no greater than 9.63 lbs/hr and 0.009 grains/dscf. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-958-96]

II.B.10.b.1 **Monitoring**: Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years, based on the date of the most recent stack test. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible particulate matter.

(3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(4) The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.10.b.2 **Recordkeeping**: Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.10.b.3 **Reporting**: The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.c Visible emissions shall be no greater than 10 percent opacity. [Authority granted under 40 CFR 60.63(b) (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.10.c.1 **Monitoring**: The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere in accordance with R307-170 and 40 CFR 63.8 (Subpart A), and shall record the output of the system. The output shall be reviewed at least monthly for compliance with the opacity limit; compliance is to be based on the percent opacity averaged over six consecutive minutes.

II.B.10.c.2 **Recordkeeping**: Results of opacity observations shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.10.c.3 **Reporting**: Reports shall be submitted as outlined in R307-170 and Provision I.S.1 of this permit.

II.B.11 **Conditions on Finish Mill (G105):**

II.B.11.a Visible emissions shall be no greater than 10 percent opacity. [Authority granted under 40 CFR 60.62(c) (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.11.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. If no visible emissions are

observed for twelve consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the above monitoring requirements shall be replaced by the following:
The permittee shall conduct a 6 minute visible emissions observations on a daily basis using 40 CFR 60, Appendix A, Method 22 and while the mill is operating at highest load or capacity level. If visible emissions are observed, permittee will initiate corrective action within one hour and conduct a 30 minute opacity observation using 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.

II.B.11.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.11.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.12 **Conditions on Finish Mill Separator (G55):**

II.B.12.a Visible emissions shall be no greater than 10 percent opacity. [Authority granted under 40 CFR 60.62(c) (Subpart F) & 40 CFR 63 (Subpart LLL); condition originated in DAQE-958-96]

II.B.12.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. If no visible emissions are observed for twelve consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the above monitoring requirements shall be replaced by the following:
The permittee shall conduct a 6 minute visible emissions observations on a daily basis using 40 CFR 60, Appendix A, Method 22 and while the mill is operating at highest load or capacity level. If visible emissions are observed, permittee will initiate corrective action within one hour and conduct a 30 minute opacity observation using 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.

II.B.12.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.12.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.13 **Conditions on Materials Handling Operation (MHO):**

II.B.13.a Visible emissions shall be no greater than 10 percent opacity from each affected unit. [Authority granted under 40 CFR 60 (Subpart F), 40 CFR 63 (Subpart LLL); condition originated in 40 CFR 60 (Subpart F), 40 CFR 63 (Subpart LLL)]

II.B.13.a.1 **Monitoring**: A visual observation of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. For each affected emission unit, if no visible emissions are observed for twelve consecutive weeks the observation frequency shall be reduced to a quarterly basis. If visible emissions are observed during any quarterly observation the frequency shall revert back to a weekly basis.

For those effected emission points of unit MHO subject to 40 CFR 63, Subpart LLL, the following shall apply:
Effective June 10, 2002 (compliance date of 40 CFR 63, Subpart LLL) the above monitoring requirements shall be replaced by the following:
The permittee shall conduct a 1 minute visible emissions observations on a monthly basis using 40 CFR 60, Appendix A, Method 22. If visible emissions are observed, permittee will initiate corrective action within one hour and conduct a 30 minute opacity observation using 40 CFR 60, Appendix A, Method 9 within 10 minutes of the initial observation. For each affected emission unit, if no visible emissions are observed for three consecutive months the monitoring frequency shall be reduced to a quarterly basis. If visible emissions are observed during any quarterly observation the frequency shall revert back to a monthly basis.

II.B.13.a.2 **Recordkeeping**: Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.13.a.3 **Reporting**: There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C. **Emissions Trading.** (R307-415-6a(10))
Not applicable to this source.

II.D. **Alternative Operating Scenarios.** (R307-415-6a(9))
Not applicable to this source.

Section III: PERMIT SHIELD

III.A. A permit shield was not granted for any specific requirements.

Section IV: ACID RAIN PROVISIONS.

IV.A. This source is not subject to Title IV. This section is not applicable.

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

DAQE-958-96 dated October 24, 1996

1: Comment on an item originating in 40 CFR 60, Subpart F & DAQE-958-96 regarding Clinker Cooler (Unit F31):

BACT more stringent than NSPS (Subpart F) and 40 CFR 63 (Subpart LLL): 40 CFR 60.62(b)(1) and 40 CFR 63 (Subpart LLL) state a standard of performance for TSP from a clinker cooler at 0.10 lbs. per ton of feed (dry basis) to the kiln. Approval Order DAQE-958-96 condition 9.B.1. states a standard of performance for TSP from the clinker cooler at 10.69 lbs. per hour (0.01 grain/scf). The equivalent unit of the NSPS for comparison is 17.00 lbs per hour based on the current maximum dry kiln feed rate of 170 tons per hour. Therefore, the BACT standard for TSP [10.69 lbs per hour] is considered more stringent than the NSPS performance standard and the MACT LLL standard, and is used as the limit for the clinker cooler baghouse discharge in this permit. [Comment last updated on 12/14/1999]

2: Comment on an item originating in 40 CFR 60, Subpart F & DAQE-958-96 regarding Kiln & Pre-Calciner and Raw Mill (Unit D38):

BACT more stringent than NSPS (Subpart F): 40 CFR 60.62(b)(1) states a standard of performance for TSP from a kiln at 0.30 lbs. per ton of feed (dry basis) to the kiln. Approval Order DAQE-958-96 condition 9.A.1. states a standard of performance for TSP from the kiln at 23.45 lbs. per hour at 170 tons per hour kiln feed rate. The equivalent unit of the NSPS for comparison is 51.00 lbs per hour based on the current maximum dry kiln feed rate of 170 tons per hour. Therefore, the BACT standard for TSP [23.45 lbs. per hour] stated in the approval order is considered more stringent than the NSPS performance standard and is used as the limit for the kiln baghouse discharge in this permit. [Comment last updated on 6/14/1999]

3: Comment on an item originating in DAQE-958-96, AO Condition 13.C. regarding Kiln & Pre-Calciner and Raw Mill (Unit D38):

AO units listed incorrectly: AO DAQE-958-96, Condition 13.C. shows a limit on the annual used oil consumption of 85,724 tons per 12 month period. Condition 13.C. should read 85,724 gallons as the limit on used oil consumption. The gallon figure has been used in this permit. [Comment last updated on 5/10/1999]

4: Comment on an item originating in DAQE-958-96, AO Condition 9.A.4. regarding Kiln & Pre-Calciner and Raw Mill (Unit D38):

CO emissions limit not established.: Approval Order DAQE-958-96, Condition 9.A.4. States: Emissions from this source have been estimated at 501 lb/hr however the final CO emission limit will be established after the initial compliance tests. This limit has not been established to date, however, the permittee has submitted a Notice of Intent dated June 4, 1999 that suggests a limit be set at 3500 lb/hr for this unit. As per the NSR permitting engineer the CO limit will be established with the finalization of the new approval order and will then be incorporated into this permit after that time. [Comment last updated on 6/23/1999]

5: Comment on an item originating in DAQE-958-96 & 40 CFR 63 (Subpart LLL) regarding Kiln & Pre-Calciner and Raw Mill (Unit D38):

BACT more stringent than MACT: 40 CFR 63 (Subpart LLL) shows a TSP limitation of 0.30 lbs./ton of feed (dry basis) to the kiln. AO DAQE 958-96 shows a BACT limitation of 23.45 lbs/hr at 170 tons per hour kiln feed rate or 0.138 lbs/ton of feed to the kiln. The BACT limitation is more stringent and is used as the limitation in this permit. [Comment last updated on 7/19/1999]

6: Comment on an item originating in DAQE-958-96, AO Condition 15 regarding permitted source (Source-wide):

AO monitoring technique subsumed by Method 203C: 58 FR 61640 Method 203C subsumes the haul road opacity monitoring technique described in DAQE-958-96, Condition 15, which has therefore not been included in this permit. [Comment last updated on 12/14/1999]

7: Comment on an item originating in DAQE-958-96, AO Condition 6 regarding Kiln & Pre-Calciner and Raw Mill (Unit D38):

Part of DAQE-958-96, Condition 6 not carried forward to this permit: A)-DAQE-958-96, Condition 6 is partially subsumed by AO Condition 7 for used oil and Utah state rule R307-203-1 for coal. Quarterly reporting requirements from AO Condition 6 have been added to II.B.7.h.3. for coal and used oil. The AO does not indicate any concentration limits to meet or specify any methods to utilize when analyzing TDF, therefore no applicable requirements pertaining to TDF quarterly reporting from AO Condition 6 have been included in this permit. [Comment last updated on 12/20/1999]

8: Comment on an item originating in DAQE-958-96, AO Condition 7 regarding Kiln & Pre-Calciner and Raw Mill (Unit D38):

Used oil sulfur limit subsumed: AO-DAQE-958-96, Condition 7 shows a sulfur limit of 0.5 percent by weight for used oil. Utah state rule R307-203-1 shows a sulfur limit of 0.85 lbs/MMBtu for used oil. The 0.5 percent by weight limit is more stringent than the 0.85 lbs/MMBtu limit and therefore this permit only includes the 0.5 percent by weight limit (condition II.B.7.h.) [Comment last updated on 12/14/1999]